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10/817,608	04/02/2004	Koji Sonoda	H-1212	2458

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ALEXANDRIA, VA 22314

EXAMINER

MEUCCI, MICHAEL D

ART UNIT	PAPER NUMBER
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2142

MAIL DATE	DELIVERY MODE
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06/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/817,608

Applicant(s)

SONODA ET AL.

Examiner

Michael D. Meucci

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the Request for Continued Examination (RCE) filed on 08 March 2007.
2. Claims 1-21 remain pending.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 10-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed "program" does not lie within any of the statutory categories of invention. A program is software per se which is considered non-statutory. The specification contains intrinsic evidence that the claimed program is intended to cover software embodiments, as supported on lines 13-16 of page 9 of the applicant's specification: "The S-SVR 1330 is a program that performs controls to make the control node (CN) 1200 possible to access file data and View data stored in the storage device 1230B, using general file access protocol such as NFS or CIFS." The claims do not describe specific hardware elements capable of utilizing the program which makes them non-statutory.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 1-4, 10-13, 19, and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Cannon et al. (U.S. 6,886,019 B1) hereinafter referred to as Cannon in view of Ono et al. (U.S. 5,539,885) hereinafter referred to as Ono and Jiang et al. (U.S. 6,453,354 B1) hereinafter referred to as Jiang.

a. As per claims 1, 19, and 21, Cannon teaches: a first computer that receives access requests to files from at least one client computer (lines 38-40 and 55-56 of column 3); a first storage device system that is connected to the first computer and stores file management information (lines 43-46 of column 1); a second computer that receives access requests to data from the first computer (lines 35-43 of column 5); a second storage device system that is connected to the second computer and stores file data (lines 35-43 of column 5); and a network that connects to the at least one client computer, the first computer and the second computer (lines 35-37 of column 1); wherein, upon receiving file data from the at least one client computer, the first computer assigns first identification information to the file data, and stores the file data in the second storage device system through the second computer (lines 11-24 of column 2); the first storage device system stores the first identification information assigned to the file data by the first computer, and a file name of a file having the file data designated by the at least one client computer as said file management information (lines 11-24 of column 2); the first computer stores the write data, through the second computer, in a storage region within the second storage device system that is different

from a storage region that stores the file data already stored in the second storage device system (lines 40-55 of column 1 and lines 49-54 of column 3); and the first computer correlates the second identification information to the filename of the file and to the first identification information and stores the second identification information in the first storage device system (lines 49-55 of column 1).

Cannon does not explicitly teach: (a) wherein upon receiving from the at least one client computer, a write request requesting write access to a file, which is the target of the write request, the first computer search an open file table, which registers in corresponding relation file names used by the at least one client computer to designate files, first identification information of files that are open; and (b) checking credential information of users of the at least one client computer who can access the files that are open and information that identifies session information which is generated when a session has been established between the at least one client computer and said first computer to obtain first identification information of the file and causing a determination whether a user of the at least one client computer has authority to execute the write request based on said credential information and said session information, and if the user of the at least one client computer has the authority to execute the write request

(a) While Cannon teaches file access and assigning to write data received from the at least one client computer with the write request second identification information different from the first identification information assigned to the file data of the file stored in the second storage device system (lines 38-48 of column 3), Cannon does not explicitly teach: wherein upon receiving from the at least one client computer,

a write request requesting write access to a file, which is the target of the write request, the first computer search an open file table, which registers in corresponding relation file names used by the at least one client computer to designate files, first identification information of files that are open. However, Ono discloses: "On receiving the file opening request as well as the network name "aaa/abc," the connection controller 13 of the server 1 searches through the open file table 11 to see if the file 18 designated by the network name "aaa/abc" is already opened," (lines 32-37 of column 4 and Fig. 8-13). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to wherein upon receiving from the at least one client computer, a write request requesting write access to a file, which is the target of the write request, the first computer search an open file table, which registers in corresponding relation file names used by the at least one client computer to designate files and first identification information of files that are open, to obtain first identification information of the file.

"Thus the connection controller 13 judges that the target file 18 can be opened, and causes the disc controller 15 to open the file 18 on the magnetic disc 17. If the file 18 is successfully opened, the connection controller 13 additionally stores in the open file table 11 the relationship between the network name, path name and the file identifier in connection with the opened file. FIG. 9 shows a typical open file table 11 generated after the additional storage of the above mentioned relationship therein. Through the transmitter-receiver 16, communication line 2 and transmitter-receiver 37, the connection controller 13 notifies the connection controller 35 that the target file has been successfully opened. If the target file is already opened so that the attempt to

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open it has failed, the connection controller 35 notifies the application program 31 of the failure to open the file," (lines 49-64 of column 4 in Ono). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to wherein upon receiving from the at least one client computer, a write request requesting write access to a file, which is the target of the write request, the first computer search an open file table, which registers in corresponding relation file names used by the at least one client computer to designate files and first identification information of files that are open, to obtain first identification information of the file in the system as taught by Cannon.

(b) Cannon does not explicitly teach: checking credential information of users of the at least one client computer who can access the files that are open and information that identifies session information which is generated when a session has been established between the at least one client computer and said first computer to obtain first identification information of the file and causing a determination whether a user of the at least one client computer has authority to execute the write request based on said credential information and said session information, and if the user of the at least one client computer has the authority to execute the write request. However, Jiang discloses: "Besides file access requests (e.g. open, read, write, close, etc.), the CIFS file server recognizes a user session setup request, a file system (dis)connection request, and a session logoff request. In the preferred scheme, the client authentication and identification number allocation is done in the Forwarder," (lines 42-47 of column 13). It would have been obvious for one of ordinary skill in the art at the time of the

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applicant's invention to check credential information of users of the at least one client computer who can access the files that are open and information that identifies session information which is generated when a session has been established between the at least one client computer and said first computer to obtain first identification information of the file and causing a determination whether a user of the at least one client computer has authority to execute the write request based on said credential information and said session information, and if the user of the at least one client computer has the authority to execute the write request. "The basic client context is the per client based information including negotiated dialect, user identification numbers, client operating system, connection identification numbers, and maximum network packet size. The extended client context also includes all the open file information. The Owner will use those Forwarder-allocated client and connection identification number and client context from the Forwarder to reconstruct the client context in its own space. The Forwarder accesses file system ownership information to determine the Owner for the data access request, and accesses file server configuration information to determine the Recipient for the data access request," (lines 50-62 of column 13 in Jiang). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to check credential information of users of the at least one client computer who can access the files that are open and information that identifies session information which is generated when a session has been established between the at least one client computer and said first computer to obtain first identification information of the file and causing a determination whether a user of the at least one

client computer has authority to execute the write request based on said credential information and said session information, and if the user of the at least one client computer has the authority to execute the write request in the system as taught by Cannon.

b. As per claim 2, Cannon teaches: the second storage device system includes file containers that store file data wherein the write data is stored in a file container, which is different from a file container that stores the file data of the file (lines 40-55 of column 1 and lines 5-26 of column 4).

c. As per claim 3, Cannon teaches: a third computer that receives an access request to a file from the at least one client computer, converts the access request received into an access request according to a protocol that is used by the first computer, and transmits the access request converted to the first computer (lines 14-29 of column 5).

d. As per claim 4, Cannon teaches: wherein the second storage device system further includes view data having at least one pair of a file name of a file and identification information of the file (lines 43-55 of column 1); the first storage device system further includes view management information including storage location of the view data (lines 49-51 of column 1); and the first computer, upon receiving from the at least one client computer a view data read request, reads the view data from the second storage device system through the second computer based on the view management information stored in the first storage device system (line 56 of column 1 through line 3 of column 2).

e. Claims 10-13 contain similar limitations as those disclosed in claims 1-4 and are rejected under the same rationale.

7. Claims 5-8 and 14-17 rejected under 35 U.S.C. 103(a) as being unpatentable over Cannon, Ono, and Jiang as applied to claims 4 and 13 above, in view of Schneider (U.S. 6,944,658 B1).

a. As per claim 5, Cannon does not explicitly teach: the second storage device system stores the view data correlated with time information, and the view data includes a pair of a file name of a file corresponding to file data and identification information of the file stored in the second storage device system at a time indicated by the time information correlated with the view data. However, Schneider discloses: "The database may have a data structure (as illustrated in FIG. 7b) including server name, directory path, previous file count with timestamp, and temp filename, etc. Each data record represents at least one subscriber or user request," (lines 47-51 of column 11). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the second storage device system store the view data correlated with time information, and the view data include a pair of a file name of a file corresponding to file data and identification information of the file stored in the second storage device system at a time indicated by the time information correlated with the view data. "Data records may be retrieved in step 830 until the last data record of the database is accessed in step 815 (equivalent to EOF). It may then be determined in step 820 whether the retrieval process is to continue by accessing in step 825 the first

data record (creating a circular database," (lines 51-55 of column 11 in Schneider). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the second storage device system store the view data correlated with time information, and the view data include a pair of a file name of a file corresponding to file data and identification information of the file stored in the second storage device system at a time indicated by the time information correlated with the view data in the system as taught by Cannon.

b. As per claims 6 and 7, Cannon teaches: the first computer, upon receiving a creation request to create a new file from the at least one client computer or a write request, stores in the second storage device system through the second computer a pair of a file name of the new file created and identification information of the new file and view data having a pair of a file name of another file and identification information of the other file stored in the second storage device system (lines 43-55 of column 1 and lines 15-24 of column 2). Cannon does not explicitly teach: time information indicating the time when the new file is created or when the write data is written. However, these limitations are disclosed in the teachings of Schneider as described above in the rejection of claim 5.

c. As per claim 8, Cannon teaches: first computer, upon receiving a view data read request from the at least one client computer (lines 38-45 of column 3). Cannon does not explicitly teach: selecting time information among the time information correlated to the view data which is older than but latest to the time information included in the view data read request, reads from the second storage device system through the

second computer view data correlated to the time information selected, and transmits the view data read to the client computer. However, these limitations are disclosed in the teachings of Schneider as described above in the rejection of claim 5.

d. Claims 14-17 contain similar limitations as those disclosed in claims 5-8 and are rejected under the same rationale.

8. Claim 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Cannon, Ono, and Jiang as applied to claim 1 above, in view of Larson et al. (U.S. 6,556,904 B1) hereinafter referred to as Larson.

As per claim 9, Cannon does not explicitly teach: a third computer that checks if a client computer has an access right to access files, wherein the first computer, upon receiving from the at least one client computer a file access request to access a file, transmits an access right check request to the third computer, and decides whether or not to execute an access processing for accessing the file according to the file access request sent from the client computer depending on an access right check result received from the third computer. However, Larson discloses: "Several different methods may be utilized to determine if a user's access authorization to the remote system has expired. For example in one embodiment, a database of authorized users is maintained on the remote system, which includes a expiration timestamp for each authorized user's access authorization," (lines 38-43 of column 7). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have a third computer that checks if a client computer has an access right to access files,

wherein the first computer, upon receiving from the at least one client computer a file access request to access a file, transmits an access right check request to the third computer, and decides whether or not to execute an access processing for accessing the file according to the file access request sent from the client computer depending on an access right check result received from the third computer. "When access to the remote system is requested by the user, the expiration timestamp for that user is compared against the current remote system timestamp, typically represented by the current time and date. If the comparison indicated that the expiration timestamp has passed, access to the remote system will be denied," (lines 45-50 of column 7 in Larson). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have a third computer that checks if a client computer has an access right to access files, wherein the first computer, upon receiving from the at least one client computer a file access request to access a file, transmits an access right check request to the third computer, and decides whether or not to execute an access processing for accessing the file according to the file access request sent from the client computer depending on an access right check result received from the third computer in the system as taught by Cannon.

9. Claim 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Cannon, Ono, and Jiang as applied to claims 19 and 21 above, in view of Nakos et al. (U.S. 2002/0049744 A1) hereinafter referred to as Nakos.

As per claim 20, Cannon teaches: a step of receiving by the third computer an access request to a file from at least one client computer (lines 14-29 of column 5). Cannon does not explicitly teach: the computer system further includes a third computer to execute protocol conversion, and a step for converting the access request received into an access request according to a protocol that is used by the first computer, and transmitting the access request converted to the first computer. However, Nakos discloses: "The web database software is a software module that translates web requests into database requests," (paragraph [0074] on page 6). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the computer system further include a third computer to execute protocol conversion, and a step for converting the access request received into an access request according to a protocol that is used by the first computer, and transmitting the access request converted to the first computer. "For example, the web requests may arrive according to HTTP protocol, and be converted by the web database software to conform to the database language used by the database server employed by the appliance (e.g. SQL or PL/SQL)," (paragraph [0074] on page 6 of Nakos). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the computer system further include a third computer to execute protocol conversion, and a step for converting the access request received into an access request according to a protocol that is used by the first computer, and transmitting the access request converted to the first computer in the system as taught by Cannon.

Response to Arguments

10. Applicant's arguments filed 12 February 2007 have been fully considered but they are not persuasive.

11. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. The applicant's arguments consist of a summary of the claim language, a summary of the prior art references, a recitation of portions of the claim language, and multiple statements that the prior art references do not teach the claimed limitations. The applicant does not specifically point out how the claim language distinguishes over the prior art.

12. The applicant's arguments pertaining to credential information and related subject matter as newly claimed are moot in view of new grounds of rejection. See rejections under 35 U.S.C. 103(a) above for new grounds of rejection.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Vahalia et al. (U.S. 6,192,408 B1) discloses storing file access information in separate servers.

Pham et al. (U.S. 2004/0015723 A1) discloses network file access with user and session identifiers.

Betz et al. (U.S. 2005/0044409 A1) discloses a data access control facility employing identification labels.

Behera (U.S. 6,950,819 B1) discloses a write access control directory.

Dunn (U.S. 7,076,558 B1) discloses user-centric consent management including read/write access.

Tock et al. (U.S. 7,146,403 B2) discloses user and server authentication.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Meucci at (571) 272-3892. The examiner can normally be reached on Monday-Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell, can be reached at (571) 272-3868. The fax phone number for this Group is 571-273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [michael.meucci@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a

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possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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SUPERVISORY PATENT EXAMINER